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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,056	09/26/2001	Toru Ikeda	0941.65870	1448

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EXAMINER	
PSITOS, ARISTOTELIS M	
ART UNIT	**PAPER NUMBER**
2653	5

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/964,056	IKEDA ET AL.	
	Examiner	Art Unit	
	Aristotelis M Psitos	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 December 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-5 and 7-22* is/are rejected.

7)☒ Claim(s) *2,6,13 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *9/26/01 & 12/19/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The IDS of 9/26/01 and 12/19/02 are acknowledged and made of record. The listing of the 11-016251 abstract of the 12/19/02 IDS has been crossed out because it has been previously cited on the IDS of 9/21/01.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1,5,9,12-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1-11 are method claims. Claims 1,5 and 9 are independent. The examiner cannot reconcile the limitations of the independent claims with the prohibition of such as outlined in ***O'Reilly v Morse56 US 62*** see for instance the discussion at page 48 with respect to eight claim.

Claims 12-22 are apparatus claims. Claims 12,16 and 20 are independent. The examiner cannot reconcile the limitations of the independent claims with the prohibition of such as outlined in

In re Hyatt 218 USPQ 195. The examiner has interpreted these claims as single means. Although the claim format is not written in "means" language, such do not distinguish thereover. Alternatively, if applicants' can convince the examiner that this is an important deviation then the examiner relies upon the above noted decision ***O'Reilly v Morse56 US 62*** and rejects these claims accordingly. Furthermore, dependent claims 13-15,17-19 and 21 add no further elements to there parent claims, but merely recite desired functional results without any additional element(s) to yield such.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claims 10 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the examiner cannot reconcile the phrase "a dependency of the write parameters ..." as recited in these claims. Further elaboration is respectfully requested. Applicants' are reminded that limitations from the disclosure cannot be read into the claims. No art is developed with respect to these claims.

Claim Rejections - 35 USC § 102

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1,9,12 and 20 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tsukahara et al further considered with Furuta et al.

Tsukahara et al discloses in this environment the ability of detecting an off track state and further involving a slice level evaluation – see the description of figure 10 for instance. The slice level is established (set) to ensure proper on track mode, i.e., if the decision in step 10 is positive, then off track is established.

If applicants are attempting to define a variation of the slice level predicated upon changing off track conditions, then the examiner submits the additional 103 rejections.

Tsukahara et al discloses a set/predefined level for his slice level detection is step 10.

The ability of altering/changing the slice level in accordance with detecting results is further taught by the Furuta et al reference – see the discussion with respect to slice level changing means 120 for instance.

It would have been obvious to modify the base system of Tsukahara et al with the additional teaching from Furuta et al, motivation is to appropriately vary the slice level in accordance with detected error conditions and hence provide for a more robust/dynamic laser power control circuit.

With respect to claim 9, since one of the conditions recited is met as analyzed above, this claim is rejected accordingly.

With respect to claims 12 and 20, these are the apparatus equivalent to independent claims 1 and 9, and as such are met by the apparatus of the above noted reference(s).

6. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 1 and 9 above, and further in view of Furuta et al.

With respect to the changing of the time constant, as noted in Furuta et al, at col. 9 lines 1-20 for instance, the frequency value of a lpf (low pass filter) can be appropriately controlled to optimize the slice level. The examiner interprets this as meeting the limitations of claim 3.

7. Claims 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 as stated in paragraph 5 above, and further in view of Ohara et al and further modified by Richards et al.

With respect to the additional provision with respect to the shock limitation – applicants' attention is drawn to the Ohara et al reference, see col. 6 lines 1-7 for instance which teaches such an additional feature. Although there is no clear depiction of a "time constant", the ability of varying the sensitivity of a shock/vibration detection circuit is further taught by Richards et al – see col. 5 lines 28 plus.

It would have been obvious to modify the base system of Tsukahara et al or Tsukahara et al and Furuta et al with the above teaching from Ohara et al and Richards et al, motivation is to provide for a proper signal recording level and compensate for various system faults.

8. Claims 5 and 16 are rejected under 35 U.S.C. 102((a) as being unpatentable over Ohara et al considered with Furuta et al.

The ability of setting slice level for a laser during a recording operation predicated upon detection of error conditions is disclosed by Furuta et al – see the discussion with respect to figure 11 for instance.

There is no detection of shock/vibration.

The ability of including various modes of error – for instance shock/vibration – is taught by Ohara et al.

It would have been obvious to modify the base system of Furuta et al with the additional teaching from Ohara et al; motivation is to ensure proper power recording margin values to ensure proper system operation.

With respect to claim 16, this is the apparatus equivalent of claim 5 and is met accordingly.

7. Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 5 and 16 above, and further in view of EP 392561.

Although Ohara et al also discloses servo –out track – see col. 5 lines 64 to 66, there is no further depiction of such.

The EP document discusses further modification for tracking off set/off track and appropriately measuring average maximum and minimum values. The examiner interprets such as meeting the claimed phrase for setting the "off-track" time constant".

It would have been obvious to modify the base system of Ohara et al as he recognizes the importance of out of track condition impacting upon laser control, with the appropriate averaging ability of the EP document, motivation is to ensure proper system performance.

9. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 5 and 16 above, and further in view of Richards et al.

Richards et al further discusses the ability of altering the sensitivity of the shock detection subunits.

It would have been obvious to modify the base system of Ohara et al/Furuta et al with the above teaching form Richards et al, motivation is to increase/alter the sensitivity of the shock sensor subunit in this environment so as to permit the system to vary its sensitivity as required.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 9 above, and further in view of Sakurai et al.

The ability of varying the power level for a laser beam in this environment predicated upon an appropriate detection of the recording medium is taught by the Sakurai et al system.

It would have been obvious to modify the base system as relied upon with respect to claim 9 above and modify such with the additional teaching from Sakurai et al, motivation is to set the power level in accordance with mode and type of medium used.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 12 above; and further in view of either the EP document or Furuta et al.

The EP document discusses further modification for tracking off set/off track and appropriately measuring average maximum and minimum values. The examiner interprets such as meeting the claimed phrase for setting the "off-track" time constant".

Alternatively, as noted in Furuta et al, at col. 9 lines 1-20 for instance, the frequency value of a lpf (low pass filter) can be appropriately controlled to optimize the slice level. The examiner interprets this as meeting the phrase "time constant" for the off track condition.

It would have been obvious to modify the base system as relied upon above with respect to claim 12 with the above teaching from either the EP document or Furuta et al, motivation is to appropriate control the laser power during off track periods.

12. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 12 above, and further in view of Ohara et al and Richards et al.

With respect to the additional provision with respect to the shock limitation – applicants' attention is drawn to the Ohara et al reference; see col. 6 lines 1-7 for instance, which teaches such an additional feature. Although there is no clear depiction of a "time constant", the ability of varying the sensitivity of a shock/vibration detection circuit is further taught by Richards et al – see col. 5 lines 28 plus.

It would have been obvious to modify the base system as relied above with respect to claim 12 and include the additional shock time constant ability, motivation is as discussed in Ohara et al optimize write margin.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 20 above, and further in view of the Sakurai et al system.

The ability of varying the power level for a laser beam in this environment predicated upon an appropriate detection of the recording medium is taught by the Sakurai et al system.

It would have been obvious to modify the base system as relied upon with respect to claim 20 above and modify such with the additional teaching from Sakurai et al, motivation is to set the power level in accordance with mode and type of medium used.

14. Claims 1, 5,9,10,12,16,20 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Tani ('761).

Applicants' attention is drawn to figure 17 b and its discussion for example. As noted therein, the slice level is set as part of the offset tracking error functionality – note in particular that step 15 follows step 10.

Since independent claims 1, 5, 9 are single step claims, and claims 12,16 and 20 are interprets as single means claims analogous to the method claims, they are met.

With respect to claims 10 and 20, as far as the claims recite limitation(s) – see the additional analysis of the above noted figure starting at col 21 line 33 till col. 22 line 19. As recited "a dependency" of the write power is different than a dependency of the erase parameter – (the setting of the slice level to a value between the erasing power level and the reading level).

Allowable Subject Matter

15. Claims 2,13 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as well as correct for any and all rejections under 35 USC 112 as noted above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

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